

## THE TROPICAL CYCLONE OF JUNE 16, 1934, IN LOUISIANA

By ISAAC MONROE CLINE

[Weather Bureau office, New Orleans, La., July 20, 1934]

The tropical cyclone of June 16, 1934, was attended by some features of special interest as it traveled north-northeastward over southeastern Louisiana. It moved into a barometric depression which covered the Gulf States, and in which the sea level barometer readings over Louisiana and Texas on the morning of the 16th were generally below 29.70 inches. The lowest reading at 8 a.m., 29.40 inches, was at Morgan City, La. At Del Rio, Tex., the barometer was 29.58 inches, only 0.18 of an inch higher than at Morgan City. The depression extended well westward into Mexico and over the southern Rocky Mountain region. The cyclone was of small diameter but destructive winds attended it to the right of the line along which the center traveled. It was of such small diameter and traveled with such speed that a destructive storm tide was not developed. A storm tide of 2 feet to 3 feet was built up with its passage on the coast between Grand Isle and Vermilion Bay. It moved in on the Louisiana coast with its center over Vermilion Bay in the forenoon of the 16th and traveled thence north-northeastward with the center passing over Jeanerette, Iberia Parish, where Rev. J. B. Gedbout reported a calm and the barometer 28.58 inches from 2 p.m. to 2:45 p.m. At Houma, La., the anemometer of the United States Department of Agriculture Experiment Station shows that the highest 5-minute velocity was 22 miles per hour, at 8:05 a.m. This was probably about the time that the front of the storm was moving in over Vermilion Bay. Morgan City reported the barometer 28.90 inches and the wind velocity 68 miles per hour from the southeast at 2 p.m., after which the pressure rose and the wind diminished. The center of the disturbance passed near but to the westward of Baton Rouge about 4:10 p.m. when the barometer read 28.795 inches. The air-line distance from Jeanerette to Baton Rouge is about 55 miles, which shows that the cyclone was traveling about 27 miles per hour. This is an unusually rapid rate of travel for these storms. At New Roads, to the left of the line followed by this disturbance, the barometer read 28.90 inches about 5 p.m. This place is 22 miles farther north than Baton Rouge.

Well in front, and for some distance to the right, of the path of the center of the cyclone the wind came in irregular, sudden, powerful gusts with a much greater and more destructive force than velocities recorded by anemometers indicated. These local squalls made their appearance several hours before there was any important fall in the barometer, and were the most destructive agents attending the cyclone.

Mr. A. B. Learned, of Natchez, Miss., reports that on the 16th before noon there was a severe local windstorm at Ferriday, La., 10 miles west of Natchez, which blew down some houses and unroofed others. The storm did not reach Natchez until some 10 or 12 hours later, with the lowest barometer 29.12 inches, between 10 p.m. and 11 p.m. of the 16th.

In New Orleans these gusts or local squalls appeared early in the forenoon of the 16th, and blew down substantial trees in different parts of the city. The highest wind velocity for a 5-minute period at the Weather Bureau office in New Orleans was 24 miles from the southeast at 2:53 p.m. At the Shushan Airport the velocity was 35 miles from the southeast at noon and 35 miles from the south-southeast at 2 p.m. The wind

velocity was as great at Baton Rouge as at Morgan City. The cyclone did not diminish in intensity until after it passed Baton Rouge, where the highest velocity was 66 miles per hour, 2:40 to 2:50 p.m., reported by Prof. Fred B. Kniffen, of the School of Geology of the Louisiana State University. He says the wind was from the northeast from 6 a.m. till noon, east from noon till 2:40 p.m., then southeast till 4:30 p.m., and south with varying easterly and westerly components until 5:40 p.m. and after 5:40 p.m. from the southwest.

The warnings received in connection with this disturbance were given a thorough distribution. The order to hoist northeast storm warnings over the threatened area was received at New Orleans at 3:06 p.m. June 15. Besides other distribution it was given at once to the

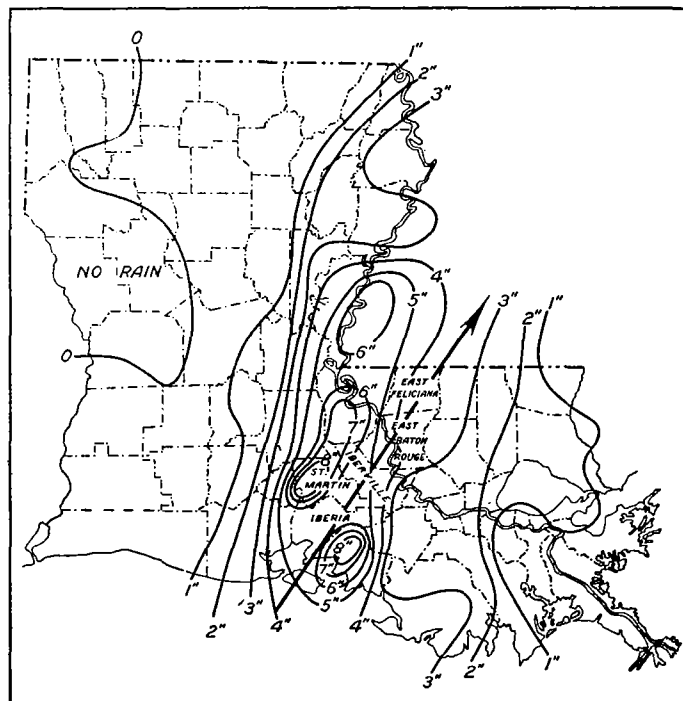


FIGURE 1.—Rainfall map of Louisiana for June 16, 1934. The arrow line shows the path of the tropical cyclone.

Houma-Terrebonne Chamber of Commerce and to the producing department of the Texas Co., Houma, La., for distribution by motor boat and special messenger (without expense to the Government) to fishing, shrimp, and oil-producing interests operating in the bays and bayous between Grand Isle and Atchafalaya Bay. The order to hoist hurricane warnings at 10:00 a.m., Grand Isle to Vermilion Bay, was given the widest possible distribution, by telephone, telegraph, and radiophone. The people of Grand Isle had been instructed to listen in for radiophone broadcasts at frequent intervals when a disturbance was approaching the Gulf Coast. The radiophone broadcasts made by WSMB, WDSU, and WWL were very effective throughout the entire region threatened with dangerous winds and high tides. At Grand Isle, which has neither telegraph nor telephone, the warnings were received by radiophone promptly and frequently. The radiophone managers were informed that the people had been told to look to them, and they gave commendable service. The

special observations, tide reports, etc., received at New Orleans were given to the radiophone stations and this information was broadcast. In this way the public was kept well informed concerning the storm, its intensity and progress.

Six persons in Louisiana lost their lives during the storm. Near the coast two small children were drowned by being washed from a raft on which their father was taking them from a shrimp platform. One man was

habitable, and between 3,000 and 7,000 were damaged more or less (Times-Picayune, June 20, 1934). A survey made by the Weather Bureau indicates that the total loss damage to buildings in Louisiana amounted to about \$1,000,000.

Damage to shrimp-drying platforms on the coast, \$75,000.

Damage to oil derricks on the coast, \$30,000.

Damage to all kinds of crops, including pecans, is estimated at \$1,500,000. Mr. C. W. Moore, marine surveyor, board of underwriters, says:

On the morning of June 16, 1934, about 9:10 o'clock as no doubt you may recall, when you handed me your latest storm bulletin, I immediately returned to my office and telephoned our marine companies the information which you had given me. I also phoned to several of the towboat owners in the New Orleans harbor giving them your latest storm warning. I then called up my son, G. F. Moore, treasurer of the Dalton Co., Baton Rouge, La., and read your storm bulletin to him.

Last week my son informed me that after he had gotten the storm warning through me, he at once ordered all valuable window displays in the Dalton Co. store removed to safety and had the windows reinforced.

Your storm bulletin, which I had phoned him fully 5 hours in advance of the storm, gave them ample time to protect their valuable dress goods and other merchandise. It was then, he said, that they fully appreciated the splendid service rendered by the Weather Bureau office of New Orleans, as their loss was found to be nil.

#### METEOR TRAILS IN ANTARCTICA

LITTLE AMERICA, VIA SAN FRANCISCO, Calif.,

July 6, 1934.

To Dr. W. J. HUMPHREYS,

Weather Bureau, Washington, D.C.

Have observed drifts on four different meteor trains such as suggested your letter January 25. All these observations indicate a wind velocity of more than 100 miles per hour from west to east at altitude of nearly 100 miles.

(Signed) THOMAS C. POULTER.

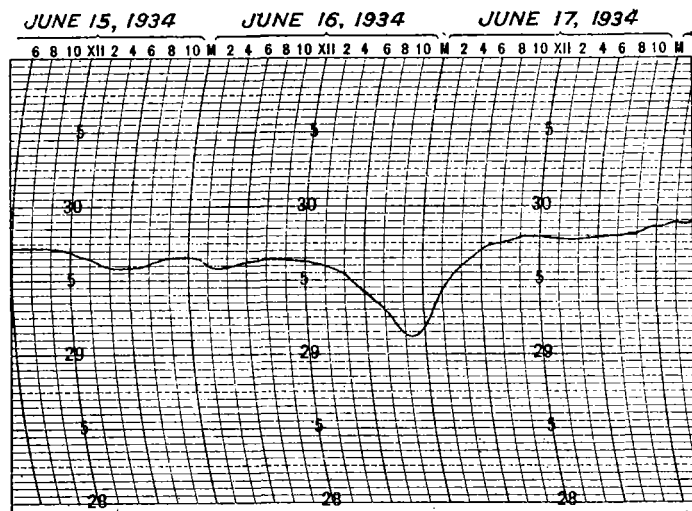


FIGURE 2.—Barogram for June 11-17 at Natchez, Miss.

killed by an automobile in the blinding rain near New Iberia, La. Another man was electrocuted by a fallen power wire near Bunkie, La. A man was drowned in attempting to swim Bayou Plaquemine. A colored man was killed near Baton Rouge, La.

Red Cross officials estimated that 75 to 150 houses were totally destroyed, 1,500 others were rendered unin-

#### ANNUAL PRECIPITATION AT PADUA, ITALY, 1901-33, INCLUSIVE

By W. W. REED

The following table prepared from annual reports of the R. Osservatorio Astronomico di Padova supplements data for the period 1725 to 1900, inclusive, presented by Robert E. Horton in "Group Distribution and Periodicity of Annual Rainfall Amounts," MONTHLY WEATHER REVIEW, October 1923, volume 51, page 516.

#### Annual precipitation, Padua, Italy

Year	Inches	Year	Inches
1901.....	39. 61	1918.....	38. 23
1902.....	33. 50	1919.....	24. 47
1903.....	31. 50	1920.....	35. 83
1904.....	31. 26		
1905.....	47. 48	1921.....	16. 91
		1922.....	27. 23
1906.....	32. 24	1923.....	28. 84
1907.....	28. 19	1924.....	34. 44
1908.....	22. 52	1925.....	28. 66
1909.....	36. 38		
1910.....	42. 34	1926.....	29. 18
		1927.....	31. 42
1911.....	35. 69	1928.....	32. 90
1912.....	30. 00	1929.....	28. 59
1913.....	33. 87	1930.....	27. 61
1914.....	30. 44		
1915.....	37. 15	1931.....	23. 24
		1932.....	30. 00
1916.....	44. 56	1933.....	25. 45
1917.....	29. 22		